BLM

Stillwater Field Office, Nevada

FINAL ENVIRONMENTAL ASSESSMENT

Nye County Water Well and Pipeline Project

DOI-BLM-NV-C010-2012-0032-EA

U.S. Department of the Interior
Bureau of Land Management
Carson City District
Stillwater Field Office
5665 Morgan Mill Road
Carson City, NV 89701
775-885-6000

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NATIONAL SYSTEM OF PUBLIC LANDS

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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ACRONYM LIST

APHIS	Animal and Plant Health Inspection Services
ARPA	Archaeological Resources Protection Act
BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CRMP	Carson City Consolidated Resource Management Plan
DOI	Department of Interior
DM	Department Manual
EA	Environmental Assessment
EO	Executive Order
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
HFRA	Healthy Forests Restoration Act
kW	Kilowatt
MCL	Maximum Containment Level
MDM	Mount Diablo Base and Meridian
mg/L	Milligrams per Liter
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Department of Transportation
NEPA	National Environmental Protection Act
NHPA	National Historic Preservation Act
NRS	Nevada Revised Statutes
NRSC	National Resources Conservation Service
PUP	Pesticide Use Proposal
PVC	Polyvinyl Chloride
ROD	Record of Decision

ROW	Right-of-Way
SFO	Stillwater Field Office
SPPC	Sierra Pacific Power Company d/b/a NV Energy
U.S.C	United States Code
USDA	United States Department of Agriculture
VRM	Visual Resource Management

1.0 INTRODUCTION/PURPOSE & NEED

1.1 INTRODUCTION

On June 16, 2011, Nye County Public Works submitted an application for the drilling of an 8-inch production water well for the Town of Gabbs, a 2,000 foot pipeline to tie in with the existing water distribution system, a groundwater pumping station including ancillary equipment and a fenced well building and standby power generation system in Nye County, Nevada. The area applied for is within the jurisdiction of the Stillwater Field Office (SFO) of the Bureau of Land Management (BLM), located at Carson City, Nevada.

Gabbs is a small rural town of 270 people located in the northwest corner of Nye County, Nevada, 50 miles west of Round Mountain and 45 miles east of Schurz, Nevada. Gabbs is accessible by traveling 50 miles east of Fallon on Hwy 50, then approximately 30 miles south on State Route 361. State Route 361 intersects Hwy 50 at Middlegate Junction. The city of Gabbs became the Town of Gabbs when it was disincorporated in May of 2001. The town is divided into northern and southern Gabbs located in portions of secs. 27, 28, and 33, T. 12 N., R. 36 E., MDM. Gabbs encompasses approximately 3.02 square miles; however, the current potable water system service area encompasses less than ½ of a square mile.

The potable water system for the Town of Gabbs consists of one groundwater well and pumping station, one welded steel water storage facility, and transmission and distribution mains. The groundwater source of supply currently exceeds the State Drinking Water Secondary Standard Maximum Contaminant Level (MCL) of 2.0 mg/L for fluoride. Fluoride levels in the town municipal well are currently 2.5 mg/L. The Town of Gabbs has been mandated by the Nevada Division of Environmental Protection (NDEP) to provide means of mitigating the fluoride levels of their potable water (Day Engineering 2011a).

Field photos of the project area can be found in Appendix A. A Project Location in the State of Nevada map is provided in Figure 1. An Overview map showing the location of the Proposed Action in relation to the Town of Gabbs is shown in Figure 2. Figure 3 is a detail map for the Proposed Action. See Appendix and Attachments, pages 18 through 21.

This EA considers the quality of the natural environment based on the physical impacts to public and private lands that may result from implementation of the Proposed Action. Moreover, it analyzes and discloses the potential environmental effects associated with the Proposed Action. The right-of-way (ROW) grant, if issued, will be administered by the SFO.

The proposal is made under the authority of Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 United States Code [U.S.C.] 1701, 1713, 1740).

These activities, and their approval by the BLM pursuant to FLPMA, constitute a federal action subject to the provisions of the National Environmental Policy Act (NEPA). This EA is not a decision document, but analyzes the potential direct, indirect, and cumulative impacts from the Proposed Action and alternatives to that action. This EA has been prepared by the BLM SFO to meet the requirements of the NEPA. Preparation has been in accordance with the Council on

Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500 et. seq.), BLM guidelines for land use planning in BLM Handbook H-1601-1, BLM guidelines for implementing NEPA in BLM Handbook H-1790-1, and the BLM-Carson City District NEPA Compliance Handbook. The BLM Handbook provides instructions for compliance with the CEQ regulations for implementing the procedural provisions of the NEPA and the Department of Interior's (DOI) Department Manual on NEPA (516 DM 1-7).

1.2 PURPOSE AND NEED FOR ACTION

The purpose of the Proposed Action is to allow for a water production well with ancillary facilities and a pipeline on public land. The need for the Proposed Action is to allow for the use of public land in obtaining and transporting a public water source that meets current safety standards. In order to address the purpose and need, the BLM will issue a ROW grant if a Finding of No Significant Impact (FONSI) is reached through the process of the analysis found in this document.

1.3 LAND USE CONFORMANCE STATEMENT

The Proposed Action and the alternatives described in this EA are in conformance with the Carson City CRMP, page LND-7, Administrative Actions #6, and to the maximum extent possible, are consistent with federal, state and local laws, regulations, and plans. The CRMP is available for review at the Stillwater Field Office located at 5665 Morgan Mill Road, Carson City, Nevada, 89701.

1.4 RELATIONSHIPS TO OTHER STATUTES, REGULATIONS, AND PLANS

The Proposed Action would be conducted under the authority of FLPMA. The FLPMA section authorizing rights-of-way relative to the Proposed Action is as follows:

- FLPMA Sec. 501 (1) authorizes "reservoirs, canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other facilities and systems for the impoundment, storage, transportation, or distribution of water."

When compatible with local government plans, federal lands should be made available for state, local government, and private uses. The FLPMA is the authority for the Proposed Action and Title 43 CFR § 2800 is the regulatory reference that describes how ROWs are administered on public lands:

- 43 CFR § 2801.2: "What is the objective of BLM's right-of-way program?

  It is BLM's objective to grant rights-of-way under the regulations in this part to any qualified individual, business, or government entity and to direct and control the use of rights-of-way on public lands in a manner that:

  (a) Protects the natural resources associated with public lands and adjacent lands, whether private or administered by a government entity;

(b) Prevents unnecessary or undue degradation to public lands;
(c) Promotes the use of rights-of-way in common considering engineering and technological compatibility, national security, and land use plans; and
(d) Coordinates, to the fullest extent possible, all BLM actions under the regulations in this part with state and local governments, interested individuals, and appropriate quasi-public entities."

Relationships to other statutes, regulations, and plans are:

- Archaeological Resources Protection Act (ARPA) of 1979, 16 U.S.C. 470aa to 470ll
- National Historic Preservation Act (NHPA) of 1966, as amended, 16 U.S.C. 470 et. seq.
- Clean Air Act of 1970, as amended, 42 U.S.C. 7401 et. seq.
- Clean Water Act of 1972, as amended, 33 U.S.C. 1251 et. seq.
- Council on Environmental Quality, Title 40 CFR, part 1500

Any water used on the described lands should be provided by an established utility or under permit issued by the Division of Water Resources, State Engineer's Office. All waters of the state belong to the public and may be appropriated for beneficial use pursuant to the provisions of Chapters 533 and 534 of the Nevada Revised Statutes (NRS).

1.5 SCOPING ISSUES

This Proposed Action was initiated internally at an Interdisciplinary Team Meeting at the SFO Riverbend Conference Room on November 7, 2011. No scoping issues were brought forward other than those addressed in Chapter 3.

2.0 PROPOSED ACTION /ALTERNATIVES

2.1 PROPOSED ACTION

This EA analyzes the proposed construction of the following project elements:

(1) Drill and construct an 8-inch cased well to 500 feet and equip the new well with a 6-inch, 60 horsepower, submersible pump, approximately 460 feet of 4-inch drop pipe with a check valve and an 8-inch pitless unit;
(2) Construct a 384 square foot (24' x 16') wood frame building with concrete slab floor to house the chemical feed system (chlorination), piping, valves, meter and bypass to waste line. The building will include heat, ventilation, air conditioning, lights and power;
(3) Install 3-phase power service from the existing, adjacent overhead power line to the new well building including a variable frequency drive unit for the well motor starter to reduce water hammer from pressure surges and an 80 kW propane-driven generator with automatic transfer switch for stand-by power;
(4) Install radio, line-of-sight telemetry to communicate with the existing water storage tank and coordinate communication with the existing town municipal well;
(5) Install site security fencing to prevent unauthorized entry and vandalism;

(6) Install approximately 2,000 feet of 8-inch C900 PVC water main from the new well to a tie-in with the existing town municipal well transmission main to the water storage tank.

The well house site will be graded two feet above the existing grade to prevent inundation from a potential flood event. The fencing will be 6-foot chain link fencing with three strands of barbed wire above the top rail and include a 20-foot double-swing gate. The propane generator will be capable of providing 24 hours of uninterrupted power service to the well pump and well house building and facilities. The telemetry system will include a radio receiver, antenna and remote terminal unit to provide communication with the existing water storage tank. The distribution pipeline will cross State Route 361 to make the tie-in with the existing town municipal well transmission main to the water storage tank. This highway crossing will require boring under the pavement section (Day Engineering 2011b).

The legal description for the Proposed Action is MDM, T. 12 N., R. 36 E., sec. 9, SW¼SE¼; sec. 16, NE¼NW¼.

2.2 ALTERNATIVES

Nye County Public Works holds two rights-of-way for water monitoring wells on the SFO. If any of the other monitoring well locations yielded favorable results for acceptable drinking water standards, they could have provided one or more alternatives; however, this was not the case. If they had, the affected environment and potential impacts would be essentially the same. This analysis will only address the Proposed Action and the No Action Alternative.

2.3 NO ACTION ALTERNATIVE

The No Action Alternative would be to not allow a water production well and related facilities or an underground pipeline to be constructed on public land. The no action alternative would either result in unacceptable water quality under NDEP standards for the Town of Gabbs, or continued water well exploration and monitoring activities conducted by Nye County Public Works, either on or off public land, in an attempt to find an alternate water source that would meet current NDEP standards.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter identifies and describes the current condition and trend of elements or resources in the human environment which may be affected by the Proposed Action or Alternatives and the environmental consequences or effects of the action(s).

3.1 SCOPING AND ISSUE IDENTIFICATION

This Proposed Action was initiated internally at an Interdisciplinary Team Meeting at the SFO Riverbend Conference Room on November 7, 2011. No scoping issues were brought forward other than those addressed in Chapter 3.

3.2 PROPOSED ACTION

General Setting

The average elevation of Gabbs is approximately 4,660 feet above mean sea level. The topography of Gabbs is set against the foothills of the Paradise Range and the Humboldt-Toiyabe National Forest sloping approximately 3 percent to the west towards Gabbs Valley. The geographical setting is Nevada desert consisting of sagebrush, bitterbrush, rabbitbrush and desert grasses. Summer temperatures can reach 100˚ Fahrenheit while extreme wintertime temperatures have dropped to less than 10˚ Fahrenheit. Annual precipitation is relatively low averaging less than 3 inches per year.

3.3 SUPPLEMENTAL AUTHORITIES

Appendix 1 of BLM's NEPA Handbook (H-1790-1) identifies Supplemental Authorities that are subject to requirements specified by statute or executive order and must be considered in all BLM environmental documents. Table 3.1 below lists the Supplemental Authorities (in bold) and their status in the project area. Supplemental Authorities that may be affected by the Proposed Action are further described in this EA.

3.4 RESOURCES OR USES OTHER THAN SUPPLEMENTAL AUTHORITIES

Table 3.1 also includes resources which are <u>not</u> Supplemental Authorities as defined by BLM's Handbook H-1790-1. BLM specialists have evaluated the potential impact of the Proposed Action on these resources and documented their findings in the table below. Resources or uses that may be affected by the Proposed Action are further described in this EA or given a rationale in the table. Some resources that are present and not affected, or even not present, are discussed further in the EA for clarification purposes.

Table 3.1*

Supplemental Authority*	Not Present **	Present/Not Affected **	Present/May Be Affected***	Rationale
Air Quality		x		Within an attainment area. Cannot be classified/Better than National standards.
Areas of Critical Environmental Concern	x			
BLM Sensitive Species		x		The project area is highly disturbed, fragmented and consists mostly of invasive weeds. Therefore; because there is no quality habitat that would support sensitive species, sensitive species would not be impacted by the project.
Cultural Resources	x			Carried forward in EA.
Environmental Justice	x			
Farm Lands (prime or unique)	x			
Forests and rangelands (HFRA Projects Only)	x			

Human Health and Safety (Herbicide Projects)	x			If herbicides become necessary to treat noxious or invasive weeds in the project area in the future, human, health and safety would not be impacted to a degree that requires detailed analysis. Any treatment would be in conformance with both the Programmatic Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States EIS and Record of Decision (BLM 2007b). This would include proper safety measures and the requirement that the applicator be certified or under the direct supervision of a certified applicator.
Floodplains	x			
Invasive, Nonnative and Noxious Species			x	Carried forward in EA.
Lands with Wilderness Characteristics	x			
Lands and Realty			x	Carried forward in EA.
Livestock Grazing		x		Due to the small project area (1.92 acres), high disturbance, invasive weeds, and the proximity to the highway, grazing will not be affected by this project.
Migratory Birds		x		The project area is highly disturbed, fragmented and consists mostly of invasive weeds. Therefore; because there is no quality habitat that would support migratory birds, they would not be impacted by the project.
Minerals	x			
Native American Religious Concerns	x			Carried forward in EA.
Recreation	x			
Renewable Energy	x			
Threatened and/or Endangered Species	x			After consulting with the BLM wildlife biologist and the USFWS website for Nevada, no federally listed threatened or endangered species occur within the project area.
Visual Resource Management			x	Project needs to meet VRM guidelines for the structures and ground disturbance. VRM will be addressed in the grant instrument for the ROW, grant monitoring, and grant compliance inspections.
Wastes, Hazardous or Solid		x		Only small quantities of hazardous and/or solid wastes would be generated by the proposed action. All hazardous materials would be transported, used, and stored following "best management practices" and in accordance with local, state, and federal regulations. All wastes would be disposed of offsite following all local, state, and federal regulations. Any spill of hazardous materials would be contained, remediated, and disposed of following all local, state, and federal regulations.
Water Quality (Surface/Ground)		x		Carried forward in EA.
Wetlands/Riparian Zones	x			
Wild and Scenic Rivers	x			
Wild Horse and Burro	x			

Wildlife/Key Habitat		x		The project area is highly disturbed, fragmented and consists mostly of invasive weeds. Therefore; because there is no quality wildlife habitat, wildlife or key habitats would not be impacted by the project.
Wilderness/WSA	x			

**See H-1790-1(January 2008) Appendix 1 Supplemental Authorities to be Considered, as well as additional resources the SFO considers in the NEPA process that may be present/affected by the Proposed Action. Handbook Supplemental Authorities are in bold.*
***Supplemental Authorities determined to be Not Present or Present/Not Affected need not be carried forward or discussed further in the document.*
****Supplemental Authorities (in bold) determined to be Present/May Be Affected must be carried forward in the document.*

3.5 RESOURCES BROUGHT FORWARD FOR ANALYSIS

The following resources are present in the area and may be affected by the Proposed Action: Invasive, Non-Native and Noxious Species, Visual Resource Management and Lands and Realty. Visual Resource Management will be addressed through stipulations in the ROW grant instrument and will not be brought forward for further discussion in this document.

The resources that are present / not affected or not present but brought forward for clarification are: Cultural Resources, Native American Religious Concerns, and Water Quality (Surface/Ground).

The resources that are either present / not affected (with rationale presented in Table 3.1), or not present, and will not be discussed further in this document are: Air Quality, Areas of Critical Environmental Concern, Environmental Justice, Farm Lands, Forests and Rangelands, Human Health and Safety, Floodplains, Lands with Wilderness Characteristics, Minerals, Recreation, Renewable Energy, Threatened and Endangered Species, Wetlands/Riparian Zones, Wild and Scenic Rivers, Wild Horse and Burros, and Wilderness/WSAs.

3.5.1 Invasive, Non-native and Noxious Species

Affected Environment

Invasive species are defined by Executive Order (EO) 13112 as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health". Alien refers to a species that did not evolve in the environment in which it is found or in other words, non-native. This includes plants, animals, and microorganisms. The definition makes a clear distinction between invasive and non-native species because many non-natives are not harmful (i.e. most U.S. crops). However, many invasive species have caused great harm (National Invasive Species Council 2005).

Noxious weeds in Nevada are classified by the Nevada Department of Agriculture and the Plant Protection Act (2000) and are administered by the United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS). Table 1 gives examples and definitions of noxious weeds in Nevada.

Table 3.2: Noxious weed categories, definitions, and examples (NDA 2010).

Type	Definition	Examples
Category A	Weeds not found or limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state in all infestations	Dyer's woad *(Isatis tinctoria)* Spotted Knapweed *(Centaurea masculosa)*
Category B	Weeds established in scattered populations in some counties of the state; actively excluded where possible; actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur	Russian Knapweed *(Acroptilon repens)* Scotch Thistle *(Onopordum acanthium)*
Category C	Weeds currently established and generally widespread in many counties of the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer	Hoary cress *(Cardaria draba* Saltcedar (tamarisk) *(Tamarix spp)*
For more information on noxious weeds visit: http://agri.nv.gov/nwac/PLANT_NoxWeedList.htm		

There are no known noxious weeds in the project area; however, the invasive, non-native cheatgrass (*Bromus tectorum*), is scattered at very low densities throughout the area. This annual grass displaces native perennial shrub, grass, and forb species because of its ability to germinate quicker and earlier than native species, thus outcompeting natives for water and nutrients. Cheatgrass is also adapted to recurring fires that are perpetuated in part by the fine dead fuels that it leaves behind. In general, native plants have a difficult time thriving in these altered fire regimes.

Environmental Consequences

Proposed Action

Under the Proposed Action, the project area would be routinely surveyed along roadways and other disturbed areas for new weed infestations. Any noxious weeds discovered on the project area would be recorded, to include the species, size of the infestation, cover class, distribution of plants (linear or irregular), and location. The SFO weed coordinator would be notified of any weeds found and provided with this information. All noxious weeds found will be treated and evaluated. Treatment methods could include BLM approved biological, cultural/mechanical, and chemical control. When applicable, several of these methods would be combined into an integrated pest management program in order to reduce costs and risks to humans and the environment.

Where chemical control is the treatment method, a Pesticide Use Proposal (PUP) would be submitted to the Nevada State Office weed coordinator, which would specify the most appropriate herbicide for the site and noxious weed species, as well as the application rate of the herbicide. Any herbicide selection and application would be in conformance with Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (EIS) and Record of Decision (ROD) (BLM 2007a,b).

Currently, the Stillwater Field Office has five approved PUP's for the use of herbicides in the treatment of cheatgrass on public land. Table 3.3 shows the herbicides, to include their common and trade names. At this time, the amount of cheatgrass on the project area is not significant enough to treat.

Table 3.3: Herbicides

Trade Name of Herbicide	Common Name of Herbicide	Formulation
Plateau	Imazapic	Liquid
Aquamaster	Glyphosate	Liquid
Gly Star Pro	Glyphosate	Liquid
Banvel	Dicamba	Liquid
Krovar I DF	Bromacil + Diuron	Granular

Under the Proposed Action, there may be an increased threat of noxious weeds being introduced into the project area by administrative vehicles associated with the drilling, road and facility construction. The likelihood of cheatgrass seeds being spread would also increase with an increase in disturbance. Vehicles used during the project would be cleaned prior to arriving at the job site. Staging and turn-around areas would be specified in the treatment plan to avoid areas of cheatgrass or other weeds.

No Action Alternative

Under the no action alternative, no new threat of invasive, non-native noxious weeds would be present.

Cumulative Impacts

The cumulative impact analysis area for invasive, non-native, and noxious species consists of the project area, and to some extent, the distance that weed seeds may be able to be transported from the site. When combined with the effects from past, present, and reasonably foreseeable future actions, cumulative effects have been determined to be positive. The risk of wildfire would be reduced with the reduction of weeds in the project area, making conditions more favorable for the desired native plant species to become established. Any short term and long term effects that may be considered negative from herbicide application to control the invasive, non-native, and noxious species would be negligible since the herbicides would be applied as per label instructions.

3.5.2 Lands and Realty

Affected Environment

There are four ROWs that adjoin or will be affected by the Proposed Action. The proponent is either the holder of these ROWs, or has been in contact with or has obtained permission from the other ROW holders. A tie-in with the power line (held by Sierra Pacific Power Company d/b/a NV Energy (SPPC)) to the north will be necessary to construct the proposed action. The proposed pipeline would run directly parallel to this ROW and to the northeast. A bore hole underneath the State Route 361 ROW held by Nevada Department of Transportation (NDOT) will be necessary. A test well is in the direct vicinity of the proposed production well and facilities and the proposed pipeline would tie into the existing pipeline ROW, however, both test well and existing pipeline ROWs are held by the proponent. See Table 3.4 for a summation of all the ROWs/ROW holders in the project area.

Table 3.4: ROWs in Project Area

Serial Number	Holder	Type of ROW
NVN 0 015414	NDOT	Hwy 361
NVN 048586	Nye County	Water Facilities / pipeline tie-in
NVN 075409	SPPC	Power Distribution / power tie-in
NVN 087379	Nye County	Test Wells

Environmental Consequences

Proposed Action

Construction of the well facilities and pipeline may disrupt access to the power distribution line for a short period of time. The necessary tie-in to the power line will require coordination with SPPC. Some construction dust is expected to occur in the project area, even when water trucks used. However, once the pipeline is in place, access is expected to improve along the rather rough two-track that is being used to access the power line at this time, for activities involving the regular monitoring and maintenance of the proposed well house facilities and clearing and construction of the buried pipeline will further define this access route.

Boring under State Route 361 may disrupt local traffic patterns for a few days, and could affect the holder's ability to access all portions of their ROW for a similar time period. This impact is expected to be restricted to the construction period and will not persist once the construction phase of the project is complete.

No Action Alternative

Under the no action alternative, there would be no temporary impacts to the access and use of these existing ROWs. Presumably, however, given that the fluoride content of the current potable water supply must be mitigated, private or public ROWs would eventually be similarly,

temporarily disrupted somewhere in the Town of Gabbs vicinity, depending on where a suitable alternate source (if any) could be located.

Cumulative Impacts

Whenever existing access routes are improved, it is foreseeable that they will experience more use. The Proposed Action will result in a more established access road. This could result in more vehicle traffic in the area. However, given that the access road will only lead to a fenced, locked compound, the cumulative impacts are expected to be minimal.

3.5.3 Cultural Resources

Affected Environment

Cultural resources include historic and prehistoric sites of interest and may include structures, archaeological sites, or religious sites of importance to Native American cultures. The U.S. National Park Service defines archaeological and historic resources as "the physical evidences of past human activity, including evidences of the effects of that activity on the environment. What makes a cultural resource significant is its identity, age, location, and context in conjunction with its capacity to reveal information through the investigatory research designs, methods, and techniques used by archeologists." Ethnographic resources are defined as any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (U.S. National Park Service 1998).

The NHPA of 1966, as amended, and the ARPA of 1979 are the primary laws regulating preservation of cultural resources. Section 106 of the NHPA, as amended (16 U.S.C. 40 et seq.), requires federal agencies to take into account the effects of their actions on properties listed or eligible for listing on the National Register of Historic Places. Regulations codified in 36 CFR 800 define how eligible properties or sites are to be dealt with by federal agencies or other involved parties. These regulations apply to all federal undertakings and all cultural (archaeological, cultural, and historic) resources. The ARPA sets a broad policy that archaeological resources are important to the nation, as well as locally and regionally, and should be protected. The purpose of the ARPA is to secure the protection of archaeological resources and sites that are on public lands and Native American lands. The law applies to any agency that receives information that a federally assisted activity could cause irreparable harm to prehistoric, historic, or archaeological data and provides criminal penalties for prohibited activities.

A Class III cultural resource inventory of the entire project area was performed by BLM in March, 1989. The results of the survey have been disclosed in the inventory report prepared by the BLM (Hufnagle, 1989). No cultural historic properties were identified within the project area.

The interpretation of archaeological finds recorded greater regional area is consistent with the archaeological patterns observed in the Carson Desert region, including Gabbs Valley. Though they parallel and occasionally diverge from those over much of the western Great Basin, the

cultural landscape is best understood with reference to a regional framework. A number of authoritative overviews and reports (e.g., Bloomer et al. 1999; Delacorte 1997; Elston 1982, 1986; Grayson 1993; Kelly 1985, 2001; McGuire 2002; Pendleton et al. 1982; Raven and Elston 1988, 1989, 1991; Thomas 1985; Zeanah et al. 1995) summarize the history of archaeological research in western Nevada in general, and the Carson Desert region in particular. These reports provide a chronological discussion and synthesis. The vast contextual information resulting from studies in the Carson Desert provides a useful foundation for the studies in Gabbs Valley.

The project area may be found to contain historic properties or resources protected under the NHPA, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, EO 13007, or other statues and executive orders.

All cultural resources sites that are known to be eligible or potentially eligible for inclusion in the National Register of Historic Places through design, construction and operation of the Proposed Action will be avoided, as per Section 106 compliance with the NHPA:

- An approximately 100-foot buffer zone would be established and identified by placing flagging around eligible and potentially eligible cultural resource sites to help provide protection to the sites. Project equipment and facilities would not encroach into the established 100-foot buffer zone;
- All employees, contractors, and suppliers would be reminded that all cultural resources are protected and if uncovered shall be left in place and reported to the Nye County representative and/or their supervisor; and
- Any unplanned discovery of cultural resources, items of cultural patrimony, sacred objects or funerary items would require that all activity in the vicinity of the find ceases, and the Field Manager, Stillwater Field Office, 5665 Morgan Mill Road, Carson City, NV 89701, be notified immediately by phone (775.885.6000) with written confirmation to follow. The location of the find would not be publicly disclosed, and any human remains must be secured.

Environmental Consequences

Proposed Action

A Class III cultural resource inventory has been performed in all areas where surface disturbance is proposed, and no sites were observed. However, if potential historic properties are discovered in the project area during construction and operation of the Proposed Action, all resources will be avoided in accordance with the State Protocol Agreement between the BLM and the State Historic Preservation Office for Implementing the NHPA, 2009, Appendix G, Sections A and B (BLM and State Historic Preservation Office 2009). The contractor would establish a 100-foot buffer zone around cultural sites where construction would be avoided. In the event that construction must encroach on this buffer, an archaeological monitor would be present while those construction activities are performed.

Based on the lack of known historic properties and the established protocol for the discovery of any new site described in this Section, there would be no impact on cultural resources discovered during operation of the proposed project.

No Action Alternative

Under the no action alternative, no cultural resources would have an opportunity to be discovered or impacted by the proposed action; therefore, there would be no resultant consequences.

Cumulative Impacts

Construction activities could increase the likelihood of vandalism and illegal collecting/excavation of cultural sites. These impacts to cultural resources could be prevented through the Section 106 process of the NHPA. The contribution of the proposed project to these cumulative effects on discovered cultural resources would be limited by the small amount (1.92 acres) of potential surface disturbance.

3.5.4 Native American Religious Concerns

Affected Environment

Consultation with the Yomba Shoshone Tribe was initiated through a consultation initiation letter provided to tribal staff. The letter included a description of the proposed project, a map of the project location, and an invitation for comments or feedback regarding the project.

Native American resources are defined as sites, areas and materials important to Native Americans for religious, spiritual or traditional reasons. These resources include villages, burials, petroglyphs, rock features, or spring locations. Fundamental to Native American religions is the belief in the sacred character of physical places, such as mountain peaks, springs, or burials. Activities that may affect sacred areas, their accessibility or the availability of materials or natural resources used in traditional practices are also considered when evaluating these areas.

Environmental Consequences

Proposed Action

Native American consultation with the Yomba Shoshone Tribe is ongoing, but no traditional cultural properties or sacred sites have been identified within the project area. Ongoing consultation could result in new information and additional mitigation measures. If previously unidentified and/or undiscovered gravesites, traditional cultural properties, artifacts, or similar occur, Nye County would implement the lease stipulations and environmental protection measures described in Section 3.5.3. These measures and stipulations include following procedures set forth in 43 CFR Part 10, Native American Graves Protection and Repatriation Regulations.

No Action Alternative

Under the No Action Alternative, consultation would continue to be ongoing with the Yomba Shoshone Tribe.

Cumulative Impacts

Over the last 15 to 20 years, BLM and the tribes have witnessed an increase in the use of lands administered by BLM by various groups, organizations, and individuals. New ways to utilize the public lands are also on the rise.

In addition to all the existing, growing, and developing uses of the public lands, water development and exploration would continue to contribute to the general decline in sites and associated activities of a cultural, traditional, and spiritual nature.

The traditional lands of the Paiute and Western Shoshone encompass the majority of the State of Nevada (including the BLM Stillwater administrative area). It is imperative that BLM and affected Tribes remain flexible and open to productive and proactive communication in order to assist each other in making decisions that would significantly reduce or eliminate any adverse effects to all parties' interests, resources, and/or activities.

3.5.5 Water Quality

Affected Environment

Proposed Action

The project is located in a water quality sensitive area with respect to groundwater supply. The proposed well site is the culmination of an extensive 2-year drilling program to locate a groundwater source of supply that meets drinking water standards. The wellhead and portions of the water transmission main are located in a flood zone where minimal flooding may occur. This poses a potential for contamination of a groundwater supply from surface water influences (Day Engineering 2011b).

No Action Alternative

Under the No Action Alternative, no new contamination influences to the surface or groundwater supply would occur.

Environmental Consequences

The environmental consequences include potential contamination of a groundwater supply from surface water influence without adequate measures. Due to the location of the new well with respect to a flood zone, the wellhead will include a 100-foot, cement sanitary seal and extend four feet above the existing ground surface to prevent surface water contamination of the new well. All buried piping will be gasketed (Day Engineering 2011b).

Cumulative Impacts

The potential for contamination of groundwater exists for this and the other facilities in the current potable water complex in and around the Town of Gabbs. However, due to mitigation by the applicant, and the procedures they must follow under current local, state and federal regulations in the construction, maintenance, and eventual reclamation of these current and proposed facilities, cumulative impacts are thought to be minimal.

3.6 ALTERNATIVES

No alternatives to the Proposed Action other than the No Action Alternative are considered in this document.

3.7 CUMULATIVE IMPACTS

All resource values brought forward have been evaluated for cumulative impacts. It has been determined that cumulative impacts would be negligible as a result of implementation of the Proposed Action because of the localized nature of the impacts.

3.8 MONITORING

No monitoring needs have been identified for this action. However, the BLM monitors the construction of approved right-of-way grants. Compliance inspections of existing rights-of-way are also part of the Lands and Realty program. Lands and Realty monitoring and compliance inspections are based on the specific grant stipulations, other specialists programs such as Invasive and Non-native and Noxious Weeds, general engineering knowledge and current policy and regulation.

3.9 MITIGATION

The mitigation measures required of the Proposed Action will consist of compliance with recommendations from the reviewing governmental agencies as well as permit requirements, compliance with grant stipulations and 43 CFR 2800 regulations, and general project clean-up, to avoid negative impacts to the environment. General clean-up can be summarized as follows:

- Remove excess soil, construction materials and all debris from the work areas on a daily basis.
- Fill in all excavations to existing grade and compact at the end of each day.
- Re-grade all construction areas including roadway shoulders and drainage ditches to existing conditions at the end of the day.
- Provide adequate traffic control and signage at all times as necessary.
- Maintain equipment in good working condition including elimination of oil or fuel leaks and removal of mud and/or noxious weeds.
- Maintain adequate dust control and drainage pursuant with permit requirements.
- Provide reseeding of all disturbed construction areas as necessary.

- Store all materials, equipment and machinery in a specific lay down yard outside public travel areas.

(Day Engineering 2011b)

4.0 PERSONS, GROUPS, AND AGENCIES CONSULTED

4.1 LIST OF PREPARERS

Bureau of Land Management

NAME	TITLE	PROJECT EXPERTISE
Teresa Knutson	Field Manager	Authorized Officer
Erik Pignata	Reality Specialist	Lands and Realty
Linda Appel	Rangeland Management Specialist	Grazing, Air Quality
John Wilson	Biologist	Vegetation and Wildlife
Steve Kramer	Planning and Environmental Coordinator	NEPA
Dan Westermeyer	Outdoor Recreation Specialist	Visual Resource Management
Jill Devaurs	Weed Coordinator	Invasive, Non-native Species
Dave Schroeder	Reclamation Compliance Specialist	Hazardous Materials
Jason Wright	Archaeologist	Cultural Resources, Native American Religious Concerns

4.2 PERSONS, GROUPS, OR AGENCIES CONSULTED

NAME	AGENCY	PROJECT EXPERTISE
Darlene Hooper-Dewey	Yomba-Shoshone Tribe	Native American Consultation
Oz Wichman	Nye County Public Works	Proponent / Applicant
	Nye County	Proponent / Applicant
	Day Engineering	Well and Environmental Reports

5.0 REFERENCES

Bureau of Land Management (BLM). 2009. *Carson City District NEPA Compliance Guidebook (Draft).* Carson City District Office, Carson City, Nevada.

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Day Engineering. 2011a. *Exploratory Well Drilling and Monitoring Well Final Completion Report*, Town of Gabbs, Nye County, Nevada.

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6.0 APPENDICES AND ATTACHMENTS

Appendix A – Field Photos

Figure 1
Project Location

Figure 2
Overview

Figure 3
Detail